Michigan State Industries

SAFETY DATA SHEET

MSI- 8761 – Delimer Date: 8/29/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Delimer

Other Means of Identification

Product Code 8761

Recommended Use of the Chemical and Restrictions on Use

Recommended UseLime, scale, rust, mineral deposit remover. Cleans & Brightens.

Details of the Supplier of the Safety Data Sheet

Manufacturer Address Michigan State Industries

17600 Ryan Rd. Detroit, Ml. 48212

Emergency Telephone Number

Company Phone Number 313-368-3200

Emergency Telephone INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity- Inhalation (Dusts/Mists)	Category 4
Skin Corrosion/ Irritation	Category 1 Sub-category C
Serious Eye Damage/ Eye Irritation	Category 1

Signal Word DANGER

<u>Hazard Statements</u> CORROSIVE. May be harmful if swallowed or inhaled. Causes severe skin burns

and eye damage. May be corrosive to metals.



Appearance: Clear Liquid Physical State: Liquid Odor: Mild Acid/Detergent odor

Precautionary Statements - Prevention

Do not breathe vapor or mist. Do not ingest. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Use in well-ventilated areas.

Precautionary Statements - Storage

KEEP OUT OF REACH OF CHILDREN. Store in a dry place no lower in temperature than 50° F or higher than 120° F. Store in a tightly closed container in a secure area inaccessible to children. Store away from oxidizing agents, alkalis, metal, and heat.

Precautionary Statements - Disposal

Do not reuse container. Triple rinse empty container with water. Plastic containers may be offered for recycling. Waste must be disposed of in accordance with federal, state, and local environment control regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Phosphoric Acid	7664-38-2	<15%
Hydrochloric Acid	7647-01-0	<3%

4. FIRST AID MEASURES

First Aid Measures

Inhalation Move person to fresh air. If not breathing, call 911 or an ambulance then give

artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control

center or doctor for further treatment advice.

Eye Contact Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove

contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call

a poison control center or doctor for treatment advice.

Ingestion Call poison control center or doctor immediately for treatment advice. Have

person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by

mouth to an unconscious person.

Skin ContactTake off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes.

Wash contaminated clothing prior to reuse. Call a poison control center or doctor

for treatment advice.

Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians No specific treatment. Treat symptomatically. Contact poison treatment specialist

immediately if large quantities have been ingested or inhaled.

5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u> Foam, Dry powder, carbon dioxide, water spray. Use suitable material for

primary source of fire.

Unsuitable Extinguishing MediaDo not use a heavy water stream.

Specific Hazards Arising from the Chemical Not Determined

Protective Equipment and Precautions for

Firefighters

Fire fighters should use an OSHA approved self-contained breathing apparatus

and protective clothing when any material is involved in a fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Wear protective clothing as required. Isolate hazard area. Keep unnecessary and

unprotected personnel from entering.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Soak up with inert absorbent material. Sweep up and shovel into suitable

containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Keep container closed while not in use. Avoid contact with eyes. Wash

thoroughly after handling. Use in well-ventilated area.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions KEEP OUT OF REACH OF CHILDREN. Store in a cool, dry place away from

direct sunlight. Store in a tightly secure area inaccessible to children.

Incompatible Materials Oxidizing agents, alkalis, metal, and heat.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Phosphoric Acid	TWA: 1 mg/m ³	TWA: 1 mg/m ³	TWA: 1 mg/m ³
7664-38-2	STEL: 3 mg/m ³	STEL: 3 mg/m ³	STEL: 3 mg/m ³
Hydrochloric Acid	TWA: 1 mg/m ³	TWA: 1 mg/m ³	TWA: 1 mg/m ³
7647-01-0	STEL: 7 mg/m ³	STEL: 7 mg/m ³	STEL: 7 mg/m ³

Appropriate Engineering Controls

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls

to control airborne levels below recommended exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Splash proof chemical safety goggles. Full face shield.

Skin and Body Protection Rubber gloves or other impervious gloves. Rubber footwear should be used.

Safety shower recommended in all storage and handling areas.

Respiratory Protection No special equipment typically needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Odor

Remarks • Method

Information on Basic Physical and Chemical Properties

Physical State Liquid **Appearance** Clear Liquid

Mild acid/detergent Color Clear **Odor Threshold** N/A

Property Values 1.0 - 1.5pН **Melting Point/Freezing Point** N/A Boiling Point/Boiling Range N/A Flash Point N/A

Evaporation Rate (Water = 1): 1

Flammability (Solid, Gas) N/A **Upper Flammability Limits** N/A **Lower Flammability Limit** N/A **Vapor Pressure** N/A **Vapor Density** N/A **Specific Gravity** 1.147

Water Solubility Completely soluble.

Solubility in Other Solvents N/A **Partition Coefficient** N/A **Auto ignition Temperature** N/A **Decomposition Temperature** N/A

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid

Contact with alkaline materials, reactive metals, and direct sunlight.

Incompatible Materials

Reacts violently with strong alkalis, producing heat. Contact with many metals may result in severe corrosion attack of the metal and liberation of hydrogen gas. Strong acids, strong bases.

Hazardous Decomposition Products

Heating phosphoric acid to decomposition yields toxic phosphorous pentoxide fumes.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation Harmful if inhaled.

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Ingestion Can cause irritation and corrosive burns to mouth, throat, and stomach.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphoric Acid 7664-38-2	3500 mg/kg (rat)	>1260 mg/kg (rat)	•
Hydrochloric Acid 7647-01-0	900 mg/kg (rabbit)	-	1108 ppm (1 hour, mouse)

Information on Physical, Chemical and Toxicological Effects

Symptoms May cause eye burns and permanent eye damage. Prolonged contact may even

cause severe skin irritation or mild burns. May cause irritation to the mucous

membranes and upper respiratory tract.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed

by ACGIH, OSHA, IARC or NTP.

12. ECOLOGICAL INFORMATION

Ecotoxicity

<u>Persistence and Degradability</u> Not Determined

<u>Bioaccumulation</u> Not Determined

Mobility Not Determined.

Other Adverse Effects. Not Determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of WastesDo not reuse container. Triple rinse empty container with water. Plastic

containers may be offered for recycling. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Contaminated Packaging Do not reuse container. Triple rinse empty container with water. Plastic

containers may be offered for recycling.

14. TRANSPORT INFORMATION

Note 4/Gal Cases: DOT Packaging Exceptions (49 CFR 173.154)

LTD, QTY.

DOT

UN/ID No UN1805

Proper Shipping Name Phosphoric Acid Solution

Hazard Class 8
Packing Group III

<u>IATA</u>

UN/ID No UN1805

Proper Shipping Name Phosphoric Acid Solution

Hazard Class 8
Packing Group III

DOT Quantity Limits Passenger Air 5 L
DOT Quantity Limits Cargo Air 60 L

IMDG

UN/ID No UN1805

Proper Shipping Name Phosphoric Acid Solution

Hazard Class 8
Packing Group III

DOT Vessel Stowage Location A – May be stowed "on deck" or "under deck" on a cargo & passenger vessel

15. REGULATORY INFORMATION

International Inventories

TSCA Listed
DSL Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

<u>CERCLA Reportable Quantity</u> The following components are listed:

Chemical Name	CAS Number	CERCLA RQ
Phosphoric Acid	7664-38-2	5000 lbs.
Hydrochloric Acid	7647-01-0	5000 lbs.

SARA 313

No chemical (s) components of this product are subject to reporting levels established by SARA Title III, Section 313.

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Phosphoric Acid 7664-38-2	X	X	X
Hydrochloric Acid 7647-01-0	X	X	X

16. OTHER INFORMATION				
NFPA	Health Hazards	Flammability	Reactivity	Special Hazards
	2	0	0	Not Determined
HMIS_	Health Hazards	Flammability	Reactivity	Personal Protection
	2	0	0	D

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet